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10/039,035	01/04/2002	Nicholas P. Wilt	MSFT-0740177740.01	2351
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EXAMINER				
DAO, THUY CHAN				
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/039,035

Applicant(s)

WILT ET AL.

Examiner

Thuy Dao

Art Unit

2192

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 November 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-9,11-18,20 and 22-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-9,11-18,20 and 22-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 January 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

1. This action is responsive to the amendment filed on November 14, 2008.
2. Claims 1, 3-9, 11-18, 20 and 22-26 have been examined.

Response to Amendments

3. In the instant amendment, claim 9 has been amended.
4. The objection to claim 9 is withdrawn in view of Applicant's amendments.

Response to Arguments

5. Applicants' arguments have been considered but are not persuasive.
- a) Claim 1 and 3-8 (Remarks, pp. 6-7):
- i) The Applicants asserted,

"However, the cited portions of Java OS say nothing about compiling into a combined set of instruction. Moreover, it further says nothing about compiling into instructions executable by the processor for interacting with a computing device. To the contrary, page 1- 2 of Java OS says that it is the platform specific code that is compiled to native code and contains the Microkernel and the JavaOS Virtual Machine (JVM) ..." (page 7, emphasis added).

As an initial matter, the examiner notes that pages 3-4 in the prior Office action mailed July 14, 2008 clearly set forth:

an intermediate language compiler capable of compiling the application instructions the runtime instructions and said at least a portion of said driver instructions into a combined set of instructions executable by the processor for interacting with the computing component (e.g., page 1-1, JavaOS as a combined/final set of instructions; pages 1-5 and 1-6, FIG. 1-1, JavaOS as a single executable program).

and further in page 7-18, downloading the Java operating system JavaOS as an executable file from the server:

Pre-Boot Execution Environment (PXE)

The Intel Preboot Execution Environment (PXE) booting standard defines a booting process for networked thin-clients (network computers). Specifically, PXE defines the network computer operating environment until an executable file containing an operating system (or OS booter program) can be downloaded from the server. JavaOS for Business uses a PXE-compliant booting system.

ii) The Applicants further asserted,

“...To the contrary, page 1- 2 of Java OS says that it is the platform specific code that is compiled to native code and contains the Microkernel and the JavaOS Virtual Machine (JVM). The rest of the system including the JavaOS are platform independent and therefore are NOT compiled to native code. For at least the foregoing reason, Java OS cannot anticipate the claimed invention.” (page 7, emphasis added).

In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., “compiled to native code” are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

The plain language of claims merely recites “*compiling the application instructions the runtime instructions and said at least a portion of said driver instructions into a combined set of instructions executable by the processor*” (claim 1, lines 12-14, emphasis added), which may include both platform independent instructions and native instructions.

b) Claims 9 and 11-17 (Remarks, page 7):

As addressed in (a) above, JavaOS explicitly discloses "*compiling the application program and the runtime program and the driver program into a single executable program for execution on the target computer system*".

c) Claims 18, 20 and 22-26 (Remarks, pp. 7-8):

As addressed in (a) above, JavaOS explicitly discloses "*instructions for compiling the application program, the runtime program and the driver program into a single executable program for execution on the target computer system*".

In conclusion, the examiner respectfully maintains ground of the 35 USC §102 rejection over claims 1, 3-9, 11-18, 20 and 22-26.

Claim Rejections – 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1, 3-9, 11-18, 20 and 22-26 are rejected under 35 U.S.C. 102(b) as being anticipated by JavaOS (art of record, "JavaOS for Business Version 2.0", Reference Manual, June 1998).

Claim 1:

JavaOS discloses *a computer system, comprising:*

a processor (e.g., pages 1-6 and 1-7, FIG. 1-1, client computer with one or more processor);

an operating system (e.g., page 1-1, JavaOS; pages 1-5 and 1-6, FIG. 1-1, JavaOS in Client-Server environment)

having a driver comprising a plurality of instructions that interacts with a computing component, at least a portion of said driver instructions being in an intermediate language (e.g., page 1-2, JavaOS device drivers written in Java);

a plurality of application instructions separate from the driver instructions, said application instructions being in an intermediate language readable by an intermediate language compiler (e.g., page 1-12, Configuration Manager; page 1-13, Service Manager; page 2-18, free-formed package of Java classes; page 2-19, other JavaOS code);

a plurality of runtime instructions, said runtime instructions being in an intermediate language readable by an intermediate language compiler (e.g., page 1-9, JDK Runtime Layer),

wherein said runtime instructions performs the translation between said application instructions and said driver; (e.g., page 1-9 to page 1-13, JMV, JDK Hosting Classes, JavaOS Device Interface, JavaOS Platform Interface), and

an intermediate language compiler capable of compiling the application instructions the runtime instructions and said at least a portion of said driver instructions into a combined set of instructions executable by the processor for interacting with the computing component (e.g., page 1-1, JavaOS as a combined/final set of instructions; pages 1-5 and 1-6, FIG. 1-1, JavaOS as a single executable program; page 7-18).

Claim 3:

The rejection of claim 1 is incorporated. JavaOS discloses *the selected driver is split into user mode and kernel mode instructions (e.g., page 1-9 and FIG. 1-3).*

Claim 4:

The rejection of claim 3 is incorporated. JavaOS discloses *the user mode instructions of the driver translates from device driver interface instructions to hardware-specific commands (e.g., pages 1-13 and 1-16).*

Claim 5:

The rejection of claim 4 is incorporated. JavaOS discloses *the driver writes hardware-specific commands into an operating system-allocated buffer for submission to a scheduler of the hardware's time* (e.g., pages 3-30 and 3-31).

Claim 6:

The rejection of claim 1 is incorporated. JavaOS discloses *the plurality of application instructions and the plurality of runtime instructions are delivered to the computer system over a network* (e.g., pages 1-7 and 1-8, FIG. 1-2, Client-Server network).

Claim 7:

The rejection of claim 1 is incorporated. JavaOS discloses *driver is delivered over a network* (e.g., pages 1-18 and 1-19, JavaOS System Database and Device Drivers).

Claim 8:

The rejection of claim 1 is incorporated. JavaOS discloses *the intermediate language compiler comprises a Just-In-Time compiler* (e.g., page 1-16).

Claim 9:

JavaOS discloses *a method for software interaction with hardware, comprising:*
receiving an application program in an intermediate programming language (e.g., page 1-12, Configuration Manager; page 1-13, Service Manager; page 2-18, free-formed package of Java classes; page 2-19, other JavaOS code);
receiving at least a portion of a driver program in an intermediate language separate from the application program instructions, said driver interacting with a computing component on a target computer system (e.g., page 1-2, JavaOS device drivers written in Java);
receiving runtime program in an intermediate programming language (e.g., page 1-9, JDK Runtime Layer),

wherein said runtime program performs the translation between said application instructions and said driver program (e.g., page 1-9 to page 1-13, JMV, JDK Hosting Classes, JavaOS Device Interface, JavaOS Platform Interface);

compiling the application program and the runtime program and the driver program into a single executable program for execution on the target computer system (e.g., page 1-1, JavaOS as a combined/final set of instructions; pages 1-5 and 1-6, FIG. 1-1, JavaOS as a single executable program; page 7-18).

Claim 11:

The rejection of claim 9 is incorporated. JavaOS discloses *the driver program comprises a kernel mode portion in an executable form (e.g., pages 1-6 and 1-7, FIG. 1-1).*

Claim 12:

The rejection of claim 11 is incorporated. JavaOS discloses *the driver program comprises a user mode portion provided in the intermediate language form (e.g., page 1-2).*

Claim 13:

The rejection of claim 12 is incorporated. JavaOS discloses *the user mode portion translates from device driver interface instructions to hardware-specific commands (e.g., pages 1-13 and 1-16).*

Claim 14:

The rejection of claim 9 is incorporated. JavaOS discloses *the driver program writes hardware-specific commands into an operating system-allocated buffer for submission to a scheduler of the hardware's time (e.g., pages 3-30 and 3-31).*

Claim 15:

The rejection of claim 9 is incorporated. JavaOS discloses *the application program and the runtime program are delivered to the target computer system over a network* (e.g., pages 1-18 and 1-19).

Claim 16:

The rejection of claim 9 is incorporated. JavaOS discloses *the driver program is delivered over a network* (e.g., pages 1-7 and 1-8).

Claim 17:

The rejection of claim 9 is incorporated. JavaOS discloses *the step of compiling uses a Just-In-Time compiler* (e.g., page 1-16).

Claim 18:

JavaOS discloses *a computer-readable medium having stored thereon computer-executable instructions for software interaction with hardware, comprising:*

instructions for receiving an application program in an intermediate programming language (e.g., page 1-12, Configuration Manager; page 1-13, Service Manager; page 2-18, free-formed package of Java classes; page 2-19, other JavaOS code);

instruction for receiving at least a portion of a driver program in an intermediate language separate from the application program instructions, said driver program interacting with a computing component on a target computer system (e.g., page 1-2, JavaOS device drivers written in Java); and

instructions for receiving a runtime program in an intermediate programming language (e.g., page 1-9, JDK Runtime Layer),

wherein said runtime program performs the translation between said application instructions and said driver program (e.g., page 1-9 to page 1-13, JMV, JDK Hosting Classes, JavaOS Device Interface, JavaOS Platform Interface);

instructions for compiling the application program, the runtime program and the driver program into a single executable program for execution on the target

computer system (e.g., page 1-1, JavaOS as a combined/final set of instructions; pages 1-5 and 1-6, FIG. 1-1, JavaOS as a single executable program; page 7-18).

Claim 20:

The rejection of claim 18 is incorporated. JavaOS discloses *the driver program comprises a kernel mode portion provided in an executable form wherein the at least a portion of the driver program in an intermediate language received comprise user mode instructions* (e.g., pages 1-18 and 1-19, Device Drivers and JavaOS System Database).

Claim 22:

The rejection of claim 20 is incorporated. JavaOS discloses *the user mode instructions translate from device driver interface instructions to hardware-specific commands* (e.g., pages 1-13 and 1-16).

Claim 23:

The rejection of claim 22 is incorporated. JavaOS discloses *the driver program writes hardware-specific commands into an operating system-allocated buffer for submission to a scheduler of the hardware's time* (e.g., pages 3-30 and 3-31).

Claim 24:

The rejection of claim 18 is incorporated. JavaOS discloses *receiving the application program and the runtime program over a network* (e.g., pages 1-17 and 1-8).

Claim 25:

The rejection of claim 18 is incorporated. JavaOS discloses *receiving the driver program over a network* (e.g., pages 1-7 and 1-8).

Claim 26:

The rejection of claim 18 is incorporated. JavaOS discloses *the step of compiling uses a Just-In-Time compiler* (e.g., page 1-16).

Conclusion

8. THIS ACTION IS MADE FINAL. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

9. Any inquiry concerning this communication should be directed to examiner Thuy Dao (Twee), whose telephone/fax numbers are (571) 272 8570 and (571) 273 8570, respectively. The examiner can normally be reached on every Tuesday, Thursday, and Friday from 6:00AM to 6:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tuan Q. Dam, can be reached at (571) 272 3695.

The fax phone number for the organization where this application or proceeding is assigned is (571) 273 8300.

Any inquiry of a general nature of relating to the status of this application or proceeding should be directed to the TC 2100 Group receptionist whose telephone number is (571) 272 2100.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you

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have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Thuy Dao/

Examiner, Art Unit 2192

/Tuan Q. Dam/

Supervisory Patent Examiner, Art Unit 2192